

Negro; and suiting his definitions to the statement, he affirms that the higher apes possess the "posterior lobe" with the "posterior horn of the lateral ventricle," and the *hippocampus minor*, or at least the "rudiments" of these parts which have been alleged to be peculiar to the human species.

It is true that the higher Quadrumanæ have a more developed cerebrum than the lower kinds, and that in this increase there is a growth in that direction in which the cerebrum of man so peculiarly predominates over the brain of all other species. In that backward growth, as was shown by Schroeder van der Kolk, in 1849, may be discerned the base or commencement of the out-growth of the parts which characterize the human hemispheres, and that part which in its human development becomes the *hippocampus minor* is rightly named by the Dutch anatomist *pes hippocampi minoris*. But to speak of this, and of the outward extension of the ventricle in which it lies as the "rudiments of the posterior cornu of the ventricle and of the *hippocampus minor*," shows a misconception of the term "rudiment" in philosophical anatomy. The "rudiment" of an organ is the representative of the totality of such organ in a germinal or undeveloped state,—such is the narwhal's tusk in the closed alveolus of the female, the mammary gland and appendage in the male mammal, the pelvis in the whale, the swim-bladder in the fish;—these are veritable rudiments of parts, which become fully developed, and with normal functions, in the other sex or in other animals; the swim-bladder becoming the lung, for example, in Batrachia and higher air-breathers.

The stunted tail of the Manx cat is not a "rudiment" of that expressive appendage in our ordinary tabbies,—it is not the representative of the whole cat's tail in miniature; it answers only to three or four of the caudal vertebrae of the root, the rest of the tail being wanting,—and so the tail may truly be said to be peculiar to the normal cat as compared with the Manx variety.

In like manner the *pes hippocampi minoris* in the brain of the Orang and Chimpanzee answers to the part so called in human anatomy, but not to the *hippocampus minor*, which, as developed and extended in the human brain, and as defined in human anatomy, is peculiar to man. So, likewise, the extension or production of the lateral ventricle "backwards, outwards and then inwards" is peculiar to man; and the base or beginning of such extension in the ape's brain can only be called a "rudiment" of the *posterior cornu*, in the sense in which the base or stump of the tail in the Manx cat may be called the "rudiment," or representative of the fully developed tail of the ordinary feline.

With regard to the graver objection of the transmutationist to inferences based upon the broad and unmistakeable distinctions between the human and higher quadrumanæ brains, viz., that the difference of size, shape and structure is still greater as between the Chimpanzee and lowest Quadrumanæ, the objection might be put even still more strongly by affirming that the difference is greater, in regard to cerebral development and structure, as between the Gorilla and the Opossum; and still more so as between the Gorilla and the Fish, than as between the Gorilla and the human species.

Whatever be the true and deep significance of the fact, there is a gradation of cerebral development from the lowest to the highest vertebrate species; but there are interruptions in this gradation, which are greatest between the cold-blooded and the warm-blooded Vertebrata, and between the class of Birds and that of Mammals. In the latter class, again, there occur marked and singular strides, so to speak, in the development of the brain.

The monotremes and marsupials have no connecting or "commissural" mass of fibres, overarched the lateral ventricles of the brain: such mass makes its appearance abruptly in the rat, shrew and sloth, which in other respects are nearest the Lycephala, or loose-brained group. In the discussions which followed the reading of Prof. Owen's Paper before the Linnean Society, in 1857, when the breaks in the series of perfectional steps of cerebral structure in the mammalian class were proposed as grounds for the division of the class

into primary groups, it was objected that the thickening by transverse fibres at the fore part of the fornix in the marsupial brain was a rudiment of the *corpus callosum*, and that therefore it was incorrect to deny the existence of that great commissure in Marsupialia, and to predicate its presence in higher Mammalia as peculiar to, because fully developed in, them. In like manner the beginning of the extension of the hind part of the cerebral hemispheres over the cerebellum, with a concomitant beginning of an extension of the lateral ventricle and its internal convolution, in that direction, as shown by Vrolik and Van der Kolk in the Orang's and Chimpanzee's brains, was adduced as invalidating the grounds for the definition of the human race by cerebral characters, as a group "Archencephala," equivalent to the other mammalian groups respectively characterized by cerebral structures. These objections were met, amongst other arguments, by that as to the erroneous application of the term "rudiment," &c., above stated. The real question being, whether the step in advance demonstrable in the mass and structure of the human brain, as contrasted with that of the ape's, is not the same in kind and degree as that which is demonstrable as between the smooth brain of the rodent and of the marsupial. There is a gradational series of improving cerebral structures from the Ornithorhynchus to the Kangaroo in the Lyencephala; but the interval or difference between any two steps in this series is very small compared with that which separates the highest Lyencephale from the lowest Lissencephale. So likewise in the quadrumanæ series there is a succession of small steps or improvements of cerebral structures by which the comparative anatomist advances from the brain of the Lemur to that of the Chimpanzee and Gorilla; but the interval or difference between any two steps in this series is truly small indeed, when compared with that vast cerebral expansion and development of new parts, such as the posterior lobes overlapping and stretching beyond the cerebellum, with their *posterior cornua* and *hippocampi minores*, which have no existence in the brains of any lower mammalian animal.

FOREIGN CORRESPONDENCE.

Lado, Port Kinnaird, Fiji, November 13, 1860.

ONCE upon a time a god and a goddess, who rejoiced in the name of Lado, were directed to block up the Moturiki passage leading into this fine port, in order to stop the rolling surf from disturbing the nightly repose of the great Fijian deities. They resolutely set about it, but having, in common with other spiritual beings, a decided objection to daylight, they threw the enormous rocks collected for that purpose in the middle of Port Kinnaird, as soon as they began to "smell the morn;" or, according to another version, their noble selves became changed into rocks, as were the villagers in the Bohemian legend of Hans Heiling. The later version seems the more rational, for once transformed into stone they were unable to stir again, whilst, if they had merely thrown down their burden, they might have been made to resume their labours, like Sisyphus of old. However, be that as it may, the fact is, that I am now on the rock identified with the name of the goddess, to pen a few lines to you; and I trust that, whatever intentions the Fijian Olympus may formerly have entertained respecting the two Lados in general, and the one I am writing on in particular, they will reconsider the question, since the British colours wave on the summit of this islet, the rocky slopes have been transformed into terraces of flowers, and a neat European-built cottage, surrounded by a lawn of couch-grass, contains the archives of the British Consulate. Judging from the crowds of boats and canoes daily arriving—for every one here has either the one or the other—the sudden disappearance of this establishment would be felt as a serious inconvenience. The British Consul is now the sole authority that keeps order in Fiji, the natives having voluntarily made over to him the entire jurisdiction of the group, and found it preferable to abide by his judgment rather than break their

own heads and those of the white settlers by an appeal to the club. It was easy for them to arrive at this conclusion; meanwhile, the person who thus finds himself called upon to adjust the differences of a native population about twice that of New Zealand, and a sprinkling of white immigrants, amounting to about five hundred souls, some of whom hold queer ideas of poetical justice, has no idle time of it; and if Mr. Pritchard had not acquired a thorough mastery over the Polynesian mind by means of his intimate acquaintance with all their customs, usages and traditions, of which he skilfully avails himself, there would be again wars and dissensions, to the serious detriment of the native population. I have repeatedly listened to the proceedings in court, and been struck with the logical acuteness of the natives. Their mind is indeed of a much superior order to that of most savages; and their discussions are as much above those of the Maoris, now teeming in the New Zealand newspapers, as the talk of men is to the prattle of children.

The Fijians are not so prepossessing in appearance as those lazy and handsome fellows, the Tonga men, who flock over here in great shoals; but whilst the Tongue lose, the Fijians gain by a closer acquaintance. There is a manliness about them that is extremely winning. Their language, so far as euphony goes, yields to none I have heard in any quarter of the globe, and to my ear it sounds as pleasing as Spanish or Italian. They are certainly not an idle people, and though not working like our own labourers, from six to six, they are great cultivators of the soil, skilful fishermen, and able builders and managers of canoes. Far from living under an absolute despotism, as is erroneously supposed, all the different States of which Fiji is composed have institutions hallowed by age and tradition, fundamentally almost identical with those cherished by the most advanced nations. The real power of the State resides in the landholders or gentry, who, at the death of a ruler, proceed to elect a new one in his stead from amongst the members of the Royal family. Generally the son, but not unfrequently the brother, or even a more distant relation of the deceased, is elevated to the chieftainship, and loyally supported in his dignity as long as he carries out the policy of those who have set him up. If this "House of Commons," as by a stretch of language it may be called, finds its wishes and aims disregarded, the members avail themselves of the privilege of refusing supplies, which, in the total absence of money, consist in yams, taro, pigs, fowls, native cloth, canoes (the naval estimates!) and all the other requirements of a great Fijian establishment. The intractable chief who has attempted to play the despot is thus generally brought to a proper sense of his condition. Of course, chiefs who, by strong family connexions, can afford to set the "Commons" at defiance, will occasionally do so. Then new expedients have to be resorted to, and the trial of strength which follows provides one of the elements of political activity. Europeans might fancy that a barbarous people would readily adopt the more simple process of getting rid of an intractable chief by knocking him on the head; and certainly that would be the solution adopted if usage had not provided a law for his protection, according to which he cannot be killed by any one inferior to him in birth. We have here the English law that a Peer cannot be tried except by his own peers, in its rudest embryonic form. It would be "*taboo*" for any commoner or serf to lay violent hands on a chief; and however obnoxious he might have been to the community, the taboo-breaker would not go unpunished. Outsiders might suppose that amongst a people destitute of all written law much confusion existed in regard to the application of this peculiar code of polity and customs. Never would a greater mistake be committed. All their usages are as firmly established, and as strictly adhered to, both in letter and spirit, as if they had been engraven on tablets of stone. The early white settlers soon found this out, and often owed the preservation of their lives to a thorough knowledge of this system. Thus, an Englishman, of the name of Pickering, once fell into the hands of a hostile tribe long on the look-out for his body. He soon became aware that they were making